



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

July 13, 2004

N. C. Dept. of Environment and Natural Resources
Division of Coastal Management
151-B NC Highway 24
Hestron Plaza II
Morehead City, NC 28557

ATTENTION: Mr. Bill Arrington
NCDOT Coordinator

Dear Sir:

Subject: **CAMA Permit Application** for the Replacement of Bridge No. 26 over Deep Creek on SR 1154, Carteret County, Federal Aid Project No. BRSTP-1154(2); State Project No. 8.2161001; TIP No. B-3626.

The project involves the removal and replacement of Bridge Number 26 carrying SR 1154 over Deep Creek in Carteret County. A new bridge approximately 90 feet (27.3 meters) long and clear width of 39 feet (11.8 meters) will be constructed to carry SR 1154 over the floodplain and creek. By utilizing phased construction, SR 1154 will remain open by maintaining half of the existing bridge while the new structure is under construction. The project is shown in the approved Categorical Exclusion.

Water Resources

The project is located near the confluence of Deep Creek and the Newport River. The majority of the area surrounding SR 1154 and bridge No. 26 is comprised of wetlands and/or surface waters. The main wetland complex, through which the existing roadway and bridge are located, is dominated by a cypress-gum swamp community. This community type comprises the majority of the project area and occurs adjacent to SR 1154 and the banks of Deep Creek, except where human development or disturbance has displaced it. Approximately 0.386 acre of wetland will be filled by the proposed project and 0.492 acres will require excavation in wetlands. The project will also require 0.324 acre of wetland to be mechanically cleared to provide room for bridge construction.

In order to reduce impacts to wetlands, phased construction will be utilized making an on-site detour unnecessary. The project will also be using a structure of increased length to improve the existing flood plain and associated wetland community.

Mitigation

Based upon the agreements stipulated in the “Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District” (MOA), it is understood that the North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP), will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for NCDOT projects that are listed in Exhibit 1 of the subject MOA during the EEP transition period which ends on June 30, 2005.

Since the subject project is listed in Exhibit 1, the necessary compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the federal Clean Water Act will be provided by the EEP. The offsetting mitigation will derive from an inventory of assets already in existence within the same 8-digit cataloguing unit. The Department has avoided and minimized impacts to jurisdictional resources to the greatest extent possible as described above. The remaining, unavoidable impacts to 1.202 acres of jurisdictional will be offset by compensatory mitigation provided by the EEP program.

Bridge Demolition

Bridge No. 26 is composed of a reinforced concrete deck and railings on timber joists. The substructure consists of timber caps on timber piles. The bridge was constructed in 1959. The bridge has a clear roadway width of 24 feet (7.3 meters) and is 53 feet (16.2 meters) long. As stated in the NCDOT Best Management Practice for Construction and Maintenance Activities, because a CAMA permit is required, dropping any component of Bridge No. 26 into “Waters of the United States,” will not be permitted.

NCDOT will also remove, or cut at mud line, all previously installed pilings under bridge No 26.

Federally Protected Species

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered, and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended.

As of January 29, 2003, the USFWS lists 7 federally protected species for Carteret County. Table 1 depicts these species and their biological conclusions.

Table 1. Federally protected species for Carteret County

Common Name	Scientific Name	Status	Biological Conclusion
<u>American alligator</u>	<i>Alligator mississippiensis</i>	T(S/A)	No Effect
<u>Eastern cougar</u>	<i>Puma concolor couguar</i>	Endangered*	No Effect
<u>Green sea turtle</u>	<i>Chelonia mydas</i>	Threatened	No Effect
<u>Hawksbill turtle</u>	<i>Eretmochelys imbricata</i>	Endangered	No Effect
<u>Kemp's ridley sea turtle</u>	<i>Lepidochelys kempii</i>	Endangered	No Effect
<u>Leatherback sea turtle</u>	<i>Dermochelys coriacea</i>	Endangered	No Effect
<u>Loggerhead sea turtle</u>	<i>Caretta caretta</i>	Threatened	No Effect
<u>West Indian Manatee</u>	<i>Trichechus manatus</i>	Endangered	No Effect
<u>Piping Plover</u>	<i>Charadrius melodus</i>	Threatened	No Effect
<u>Red-cockaded woodpecker</u>	<i>Picoides borealis</i>	Endangered	No Effect
<u>Roseate tern</u>	<i>Sterna dougallii</i>	Endangered	No Effect
<u>Shortnose sturgeon</u>	<i>Acipenser brevirostrum</i>	Endangered	No Effect
<u>Rough-leaved loosestrife</u>	<i>Lysimachia asperulaefolia</i>	Endangered	No Effect
<u>Seabeach amaranth</u>	<i>Amaranthus pumilus</i>	Threatened	No Effect

KEY:**Status****Definition****Endangered -**

A taxon "in danger of extinction throughout all or a significant portion of its range."

Threatened -

A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

T(S/A) -

Threatened due to similarity of appearance (e.g., American alligator)--a species that is threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened and are not subject to Section 7 consultation.

*Historic record - the species was last observed in the county more than 50 years ago.

Regulatory Approvals

Section 404 Permit: This project is being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). Therefore, we do not anticipate requesting an individual permit but propose to proceed under a Nationwide 23 as authorized by a Nationwide Permit (67 FR 2020; January 15, 2002).

Section 401 Water Quality Certification: We anticipate 401 General Certification numbers 3403 will apply to this project. In accordance with 15A NCAC 2H, Section .0500(a) we are providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their review.

The NCDOT hereby requests that this project be authorized by the issuance of a Coastal Area Management Act Major Development Permit. Please find attached the completed MP forms along with the appropriate permit drawings. The certified mail "green cards" from the adjacent riparian landowner notifications are also included. The NCDOT has also requested authorization from the North Carolina Division of Water Quality and the U. S. Army Corps of Engineers under separate cover. If you have any questions, please don't hesitate to call Mr. Michael Turchy of my staff at maturchy@dot.state.nc.us or (919) 715-1468.

A copy of this permit application will be posted on the DOT website at:
<http://www.ncdot.org/planning/pe/naturalunit/Permit.html>.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory J. Thorpe", with a stylized "SR" monogram to the right.

Gregory J. Thorpe, Ph.D.,
Environmental Management Director
Project Development and Environmental Analysis Branch

Cc:

Ms. Cathy Brittingham, NCDOT

W/ cover letter only

Mr. Bill Biddlecomb, USACE, Washington

Mr. John Hennessy, DWQ, Raleigh*** (one copy)

Mr. Travis Wilson, NCWRC

Mr. Gary Jordan, USFWS

Mr. Ron Sechler, NMFS

Mr. Mike Street, NCDMF

Mr. David Chang, P.E., Hydraulics

Mr. Greg Perfetti, P.E., Structure Design

Mr. C. E. Lassiter, P.E. Div. 2, Division Engineer

Mr. Jay Johnson Div. 2, DEO

Ms. Stacy Baldwin, PE, PDEA Planning Engineer

***CAMA office will furnish Mr. John Hennessy seven (7) copies of the CAMA permit application package after it is determined that the permit application is complete and the review can begin.

APPLICATION

(To be completed by all applicants)

1. APPLICANT

a. Landowner:

Name N. C. Department of Transportation

Address 1548 Mail Service Center

City Raleigh State NC

Zip 27699-1548 Day Phone 919-733-3141

Fax 919-733-9794

b. Authorized Agent:

Name Gregory J. Thorpe, Ph.D.

Address 1598 Mail Service Center

City Raleigh State _____

Zip 27699 Day Phone (919) 715-1468

Fax _____

c. Project name (if any) TIP B-3626

NOTE: Permit will be issued in name of landowner(s), and/or project name.

2. LOCATION OF PROPOSED PROJECT

a. County: Carteret

b. City, town, community or landmark
Newport

c. Street address or secondary road number
SR 1154, Next to Prison Camp

d. Is proposed work within city limits or planning jurisdiction? _____ Yes X No

e. Name of body of water nearest project (e.g. river, creek, sound, bay) New Port River

3. DESCRIPTION AND PLANNED USE OF PROPOSED PROJECT

a. List all development activities you propose (e.g. building a home, motel, marina, bulkhead, pier, and excavation and/or filling activities.

Replace Bridge No 26 over Deep Creek

b. Is the proposed activity maintenance of an existing project, new work, or both? Both

c. Will the project be for public, private or commercial use? Public

Give a brief description of purpose, use, methods of construction and daily operations of proposed project. If more space is needed, please attach additional pages.
Replace Bridge No. 26 over Deep Creek. Phase construction, maintaining half of existing bridge during construction. See attached drawings for impacts.

4. LAND AND WATER CHARACTERISTICS

- a. Size of entire tract Approximately 2 acres
- b. Size of individual lot(s) N/A
- c. Approximate elevation of tract above MHW or NWL 0-6.29'
- d. Soil type(s) and texture(s) of tract Masontown mucky loam / sandy loam
- e. Vegetation on tract Swamp tupelo, black gum, bald cypress, giant cane, greenbriar, various sedges, rush, netted chain fern, pickeral weed.
- f. Man-made features now on tract Roadway and bridge
- g. What is the CAMA Land Use Plan land classification of the site? (*Consult the local land use plan.*)
- | | |
|-------------------------|-------------------------|
| <u>X</u> Conservation | <u>X</u> Transitional |
| <u> </u> Developed | <u> </u> Community |
| <u> </u> Rural | <u> </u> Other |
- h. How is the tract zoned by local government? N/A
- i. Is the proposed project consistent with the applicable zoning? X Yes No
(*Attach zoning compliance certificate, if applicable*)
- j. Has a professional archaeological assessment been done for the tract? X Yes No
If yes, by whom? NCDOT
- k. Is the project located in a National Registered Historic District or does it involve a National Register listed or eligible property?
 Yes X No
- l. Are there wetlands on the site? X Yes No
Coastal (marsh) Other
If yes, has a delineation been conducted? Yes
(*Attach documentation, if available*)
- m. Describe existing wastewater treatment facilities.

N/A

- n. Describe location and type of discharges to waters of the state. (For example, surface runoff, sanitary wastewater, industrial/commercial effluent, "wash down" and residential discharges.) surface runoff
- o. Describe existing drinking water supply source. N/A

5. ADDITIONAL INFORMATION

In addition to the completed application form, the following items must be submitted:

- **A copy of the deed** (with state application only) or other instrument under which the applicant claims title to the affected properties. If the applicant is not claiming to be the owner of said property, then forward a copy of the deed or other instrument under which the owner claims title, plus written permission from the owner to carry out the project.
- **An accurate, dated work plat** (including plan view and cross-sectional drawings) drawn to scale in black ink on an 8 1/2" by 11" white paper. (Refer to Coastal Resources Commission Rule 7J.0203 for a detailed description.)

Please note that original drawings are preferred and only high quality copies will be accepted. Blue-line prints or other larger plats are acceptable only if an adequate number of quality copies are provided by applicant. (Contact the U.S. Army Corps of Engineers regarding that agency's use of larger drawings.) A site or location map is a part of plat requirements and it must be sufficiently detailed to guide agency personnel unfamiliar with the area to the site. Include highway or secondary road (SR) numbers, landmarks, and the like.

- **A Stormwater Certification**, if one is necessary.

- A list of the **names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail.** Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management. Upon signing this form, the applicant further certifies that such notice has been provided.

Name See attached list
Address _____
Phone _____

Name _____
Address _____
Phone _____

Name _____
Address _____
Phone _____

- A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

N/A

- A check for \$400 made payable to the Department of Environment, Health, and Natural Resources (DEHNR) to cover the costs of processing the application.
- A signed AEC hazard notice for projects in oceanfront and inlet areas.
- A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A - 1 to 10)
If the project involves the expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

6. CERTIFICATION AND PERMISSION TO ENTER ON LAND

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to conditions and restrictions contained in the permit.

I certify that to the best of my knowledge, the proposed activity complies with the State of North Carolina's approved Coastal Management Program and will be conducted in a manner consistent with such program.

I certify that I am authorized to grant, and do in fact, grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

This is the 13 day of July, 2004

Print Name Bruce O. Ellis

Signature 
Landowner or Authorized Agent

Please indicate attachments pertaining to your proposed project.

☒ DCM MP-2 Excavation and Fill Information
☐ DCM MP-3 Upland Development
☐ DCM MP-4 Structures Information
☒ DCM MP-5 Bridges and Culverts
☐ DCM MP-6 Marina Development

NOTE: Please sign and date each attachment in the space provided at the bottom of each form.

BRIDGES AND CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM-MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project.

1. BRIDGES

- a. Public ☒ Private ☐
- b. Type of bridge (construction material)
Concrete & Steel "Cored Slab"
- c. Water body to be crossed by bridge
Deep Creek
- d. Water depth at the proposed crossing at MLW or 6.5'
- e. Will proposed bridge replace an existing bridge?
☒ Yes ☐ No
If yes,
 (1) Length of existing bridge 52.5'
 (2) Width of existing bridge 23.4'
 (3) Navigation clearance underneath existing bridge 2.5 feet
 (4) Will all, or a part of, the existing bridge be removed? (Explain) Yes, All
- f. Will proposed bridge replace an existing culvert(s)?
☐ Yes ☒ No
If yes,
 (1) Length of existing culvert
 (2) Width of existing culvert
 (3) Height of the top of the existing culvert above the MHW or NWL
 (4) Will all, or a part of, the existing culvert be removed? (Explain)

- g. Length of proposed bridge 90'
- h. Width of proposed bridge 39'
- i. Height of proposed bridge above wetlands
Same as existing
- j. Will the proposed bridge affect existing water flow?
☐ Yes ☒ No
If yes, explain
- k. Navigation clearance underneath proposed bridge
2.5 feet
- l. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☒ Yes ☐ No
If yes, explain The new structure will be wider, spanning a larger portion of the flood plain, thus improving hydraulic capacity during flood events.
- m. Will the proposed bridge cross wetlands containing no navigable waters? ☐ Yes ☒ No
If yes, explain
- n. Have you contacted the U.S. Coast Guard concerning their approval?
☐ Yes ☒ No
If yes, please provide record of their action.

2. CULVERTS N/A

- a. Water body in which culvert is to be placed
- b. Number of culverts proposed
- c. Type of culvert (construction material, style)
- d. Will proposed culvert replace an existing bridge?

Form DCM-MP-5

_____ Yes _____ No

If yes,

- (1) Length of existing bridge _____
- (2) Width of existing bridge _____
- (3) Navigation clearance underneath existing bridge _____
- (4) Will all, or a part of, the existing bridge be removed? (Explain) _____

e. Will proposed culvert replace an existing culvert?

_____ Yes _____ No

If yes,

- (1) Length of existing culvert _____
- (2) Width of existing culvert _____
- (3) Height of the top of the existing culvert above the MHW or NWL _____
- (4) Will all, or a part of, the existing culvert be removed? (Explain) _____

f. Length of proposed culvert _____

g. Width of proposed culvert _____

h. Height of the top of the proposed culvert above the MHW or NWL _____

i. Will the proposed culvert affect existing water flow?

_____ Yes _____ No

If yes, explain _____

j. Will the proposed culvert affect existing navigation potential? _____ Yes _____ No

If yes, explain _____

b. Will the placement of the proposed bridge or culvert require any excavation within:

_____ Coastal Wetlands _____ SAVs X Other Wetlands

If yes,

- (1) Length of area to be excavated same as above
- (2) Width of area to be excavated same as above
- (3) Amount of material to be excavated in cubic yards same as above

c. Will the placement of the proposed bridge or culvert require any highground excavation?

X Yes _____ No

If yes,

- (1) Length of area to be excavated 50'
- (2) Width of area to be excavated 52'
- (3) Amount of material to be excavated in cubic yards 190

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(1) Location of the spoil disposal area

N/A

(2) Dimensions of spoil disposal area

N/A

(3) Do you claim title to the disposal area?

_____ Yes X No

If no, attach a letter granting permission from the owner.

(4) Will the disposal area be available for future maintenance? _____ Yes X No

(5) Does the disposal area include any coastal wetlands (marsh), SAVs, or other wetlands?

_____ Yes X No

If yes, give dimensions if different from (2) above. _____

(6) Does the disposal area include any area below the MHW or NWL? _____ Yes X No

If yes, give dimension if different from No. 2 above. _____

3. EXCAVATION AND FILL

a. Will the placement of the proposed bridge or culvert require any excavation below the MHW or NWL?

X Yes _____ No

If yes,

- (1) Length of area to be excavated 1080'
- (2) Width of area to be excavated 20'
- (3) Depth of area to be excavated 3'
- (4) Amount of material to be excavated in cubic yards 1430

e. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed below MHW or NWL? X Yes _____ No

If yes,

- (1) Length of area to be filled 620'
- (2) Width of area to be filled average of 10-20 feet per side

Form DCM-MP-5

- (3) Purpose of fill Support roadway (in existing canals)
- f. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed within:
_____ Coastal Wetlands _____ SAVs X Other Wetlands If yes,
(1) Length of area to be filled same as above
(2) Width of area to be filled same as above
(3) Purpose of fill support roadway
- g. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed on highground? _____ Yes X No
If yes,
(1) Length of area to be filled _____
(2) Width of area to be filled _____
(3) Purpose of fill _____

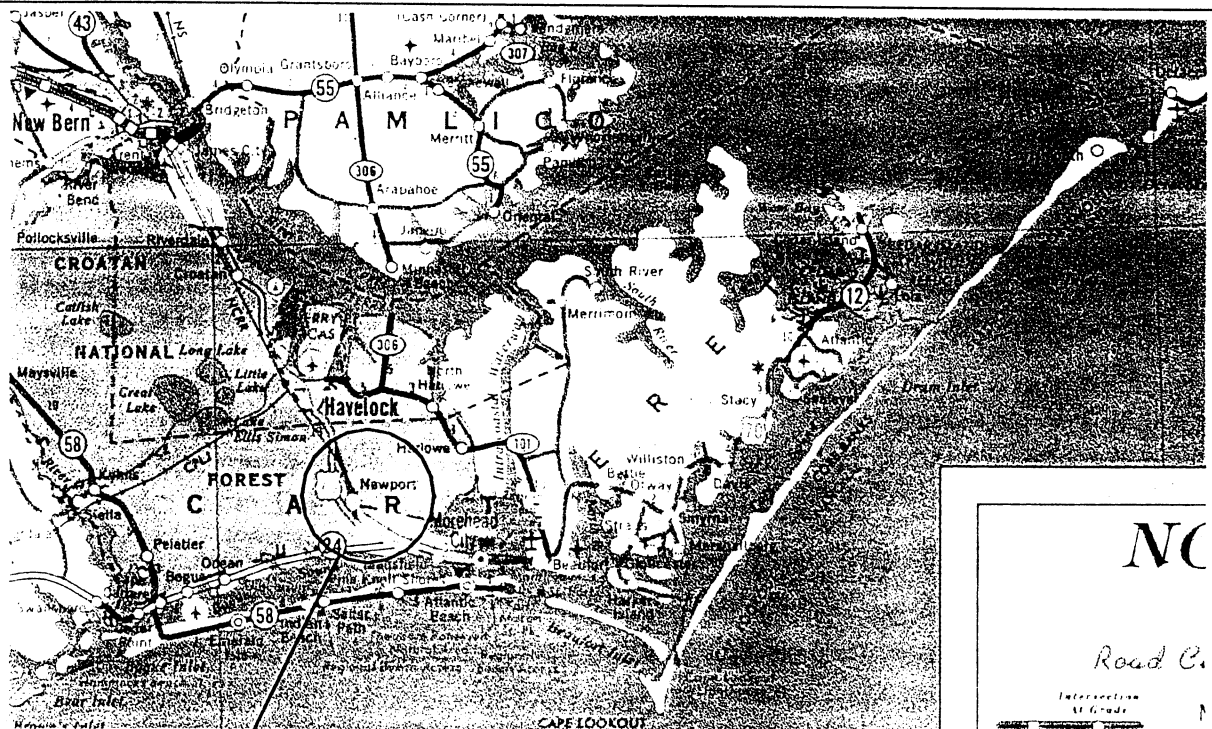
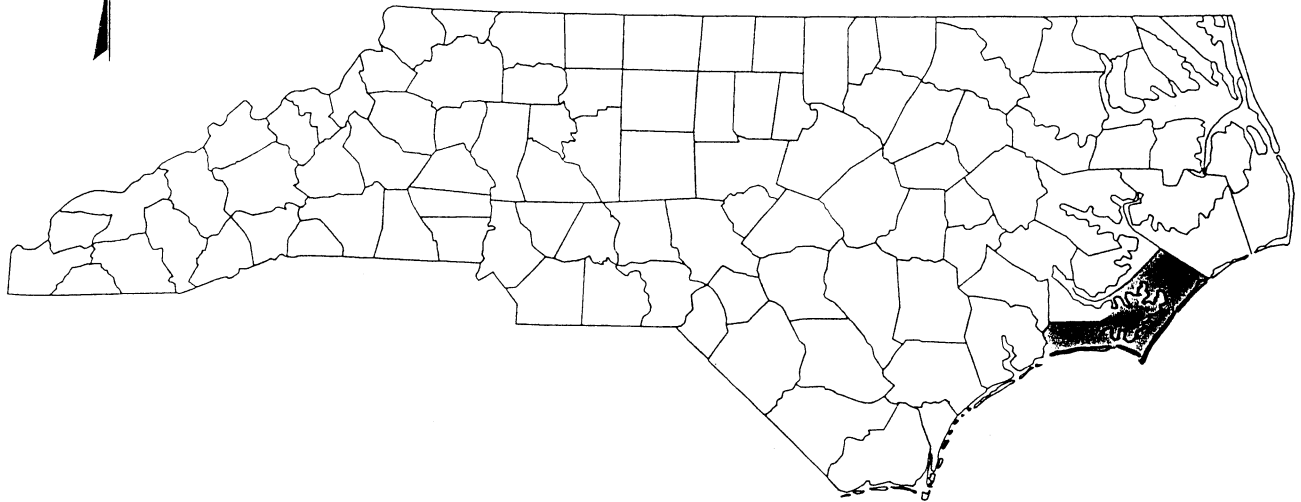
4. GENERAL

- a. Will the proposed project involve any mitigation?
X Yes _____ No
If yes, explain in detail _____
EEP will handle all mitigation
- b. Will the proposed project require the relocation of any existing utility lines? X Yes _____ No
If yes, explain in detail after project is complete, utilities will be replaced using a directional bore method- no impacts to wetlands.
- c. Will the proposed project require the construction of any temporary detour structures?
_____ Yes X No
If yes, explain in detail _____
- d. Will the proposed project require any work channels?
_____ Yes X No
If yes, complete Form DCM-MP-2
- e. How will excavated or fill material be kept on site and erosion controlled? NCDOT High Quality Waters Erosion Control Methods will be used

- f. What type of construction equipment will be used (for example, dragline, backhoe or hydraulic dredge)?
Heavy highway construction equipment
- g. Will wetlands be crossed in transporting equipment to project site? _____ Yes X No
If yes, explain steps that will be taken to lessen environmental impacts. _____
- h. Will the placement of the proposed bridge or culvert require any shoreline stabilization?
X Yes _____ No
If yes, explain in detail Corners of bridge abutments, see plan-view.

NCDOT
Applicant or Project Name
[Signature]
Signature
7/13/04
Date

VICINITY MAP NORTH CAROLINA



NC

Road C.

Intersection
At Grade

NORTH CAROLINA DEPARTMENT OF HIGHWAYS

CARTERET COUNTY
8.2161001 (B-3626)

BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK

NOT TO SCALE

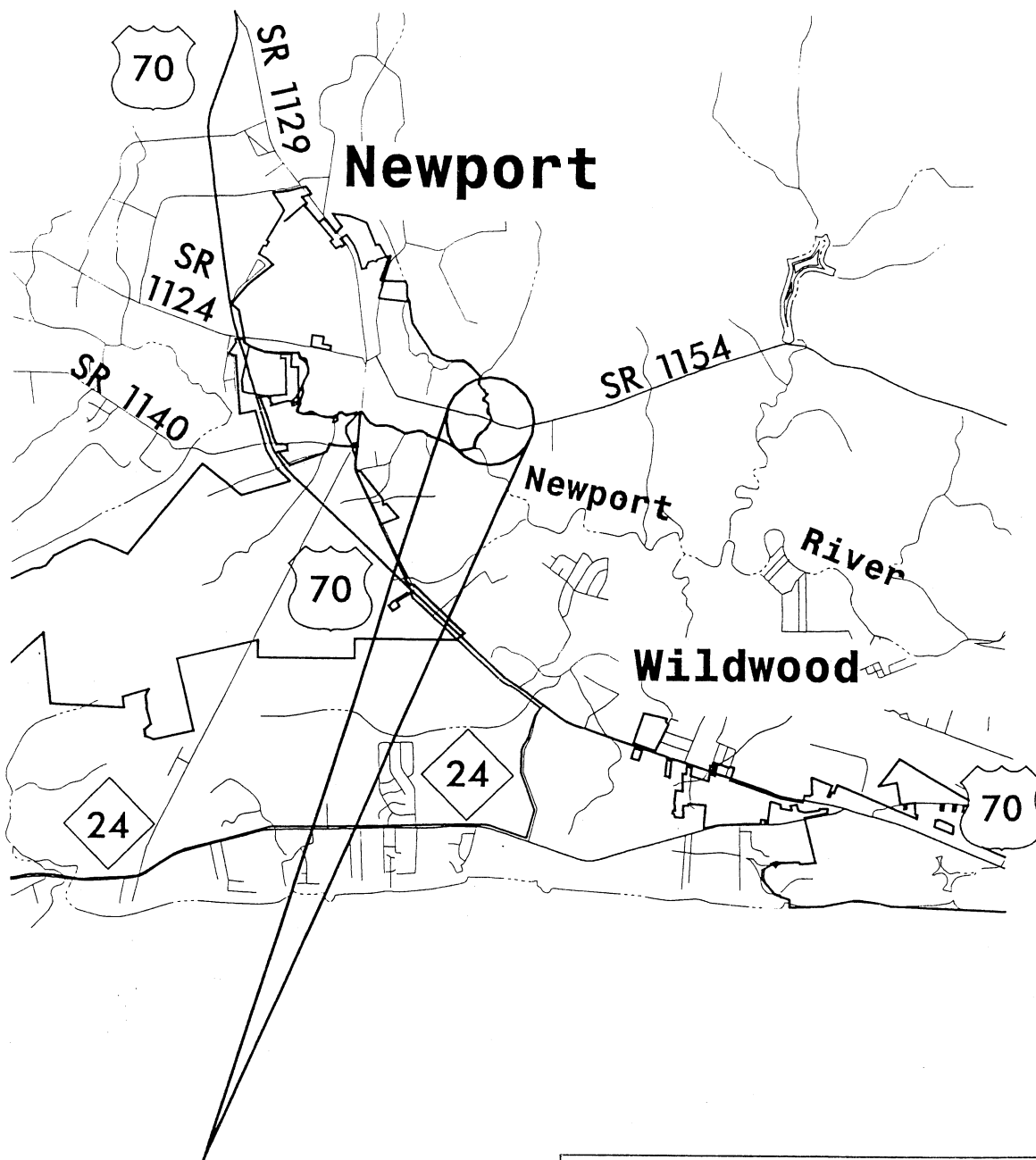
SITE

DATE: 1-20-03

SHEET 1 OF 11

10/1/03 10:29 AM
10/1/03 10:29 AM
10/1/03 10:29 AM

SITE MAP



SITE



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

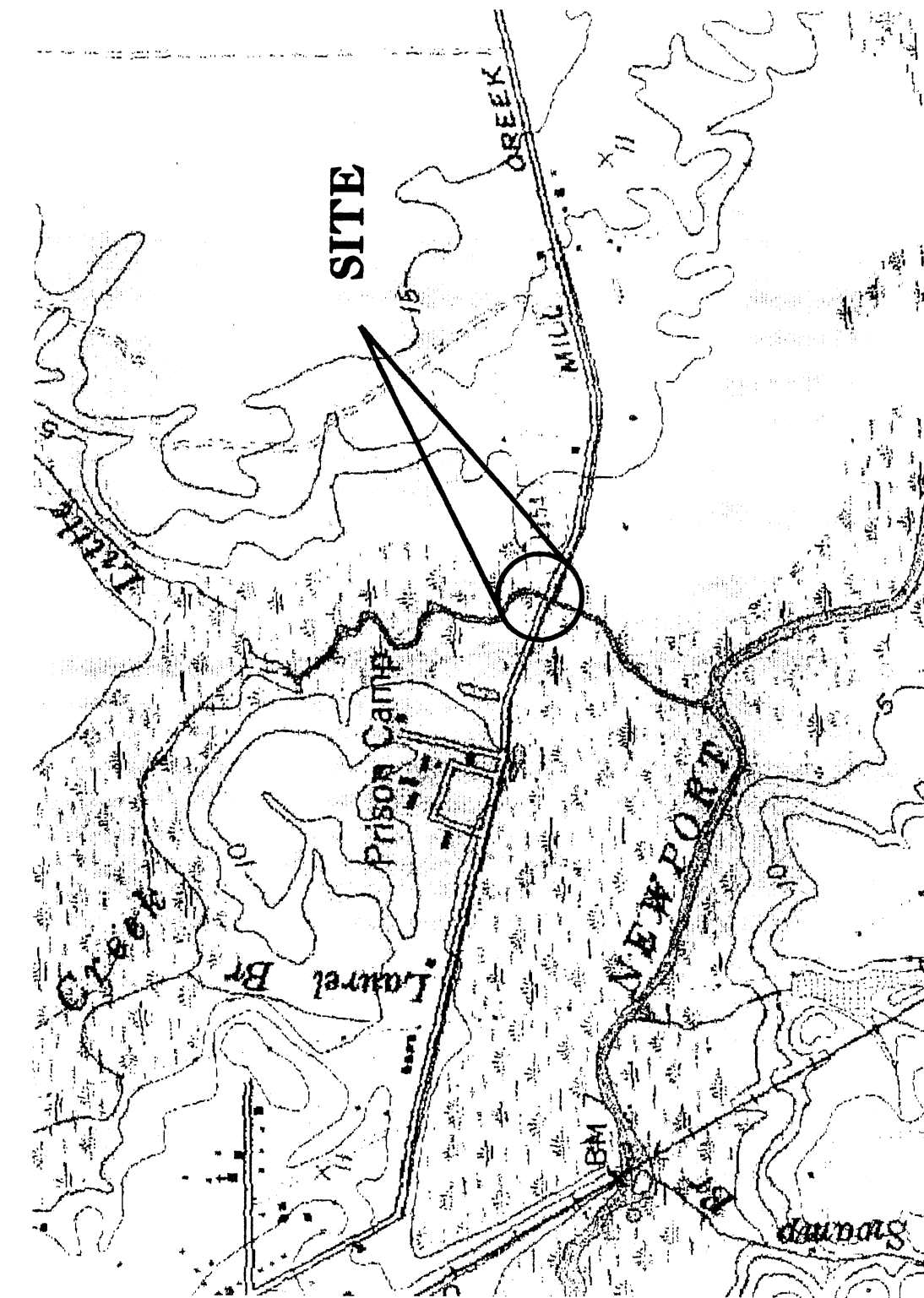
CARTERET COUNTY
8.2161001 (B-3626)

BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK

NOT TO SCALE

DATE: 1-20-03

SHEET 2 OF 11



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

CARTERET COUNTY
8.2161001(B-3626)

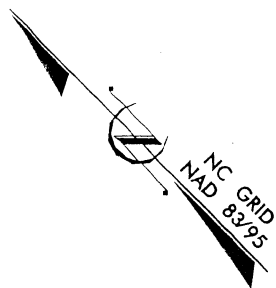
BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK

NOT TO SCALE

DATE: 1-20-03

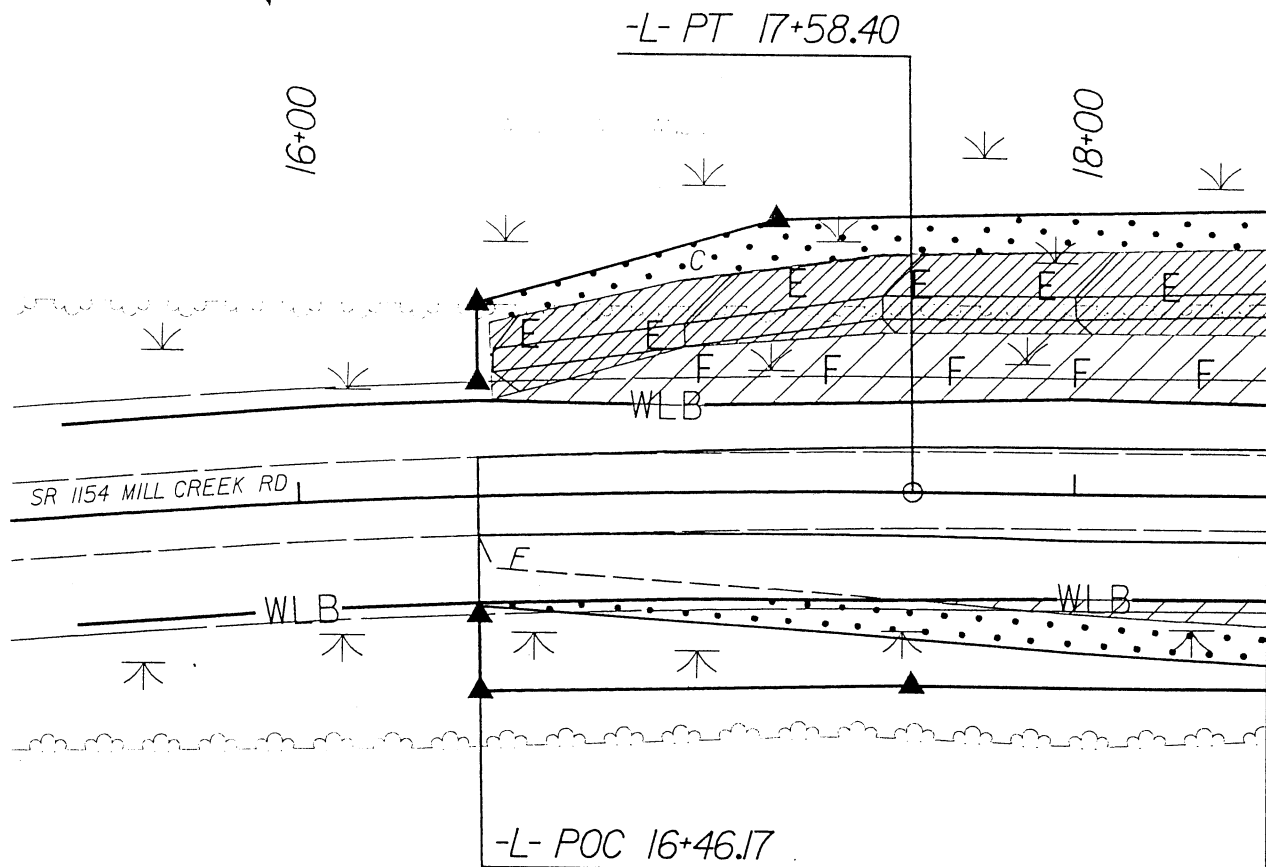
SHEET 3 OF 11

SITE MAP



1
NC DEPARTMENT
OF CORRECTION

PROPERTY LINE IS
ALONG RUN OF
DEEP CREEK



MATCHLINE STA. 18+50

1
NC DEPARTMENT
OF CORRECTION

WLB'S W/ ALOS

PLAN VIEW SITE 1

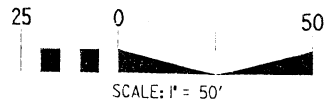
LEGEND

- WLB— WETLAND
- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING

NORTH CAROLINA DEPARTMENT OF HIGHWAYS

CARTERET COUNTY
8.2161001(B-3626)

BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK



DATE: 1-20-03

SHEET 5 OF 11

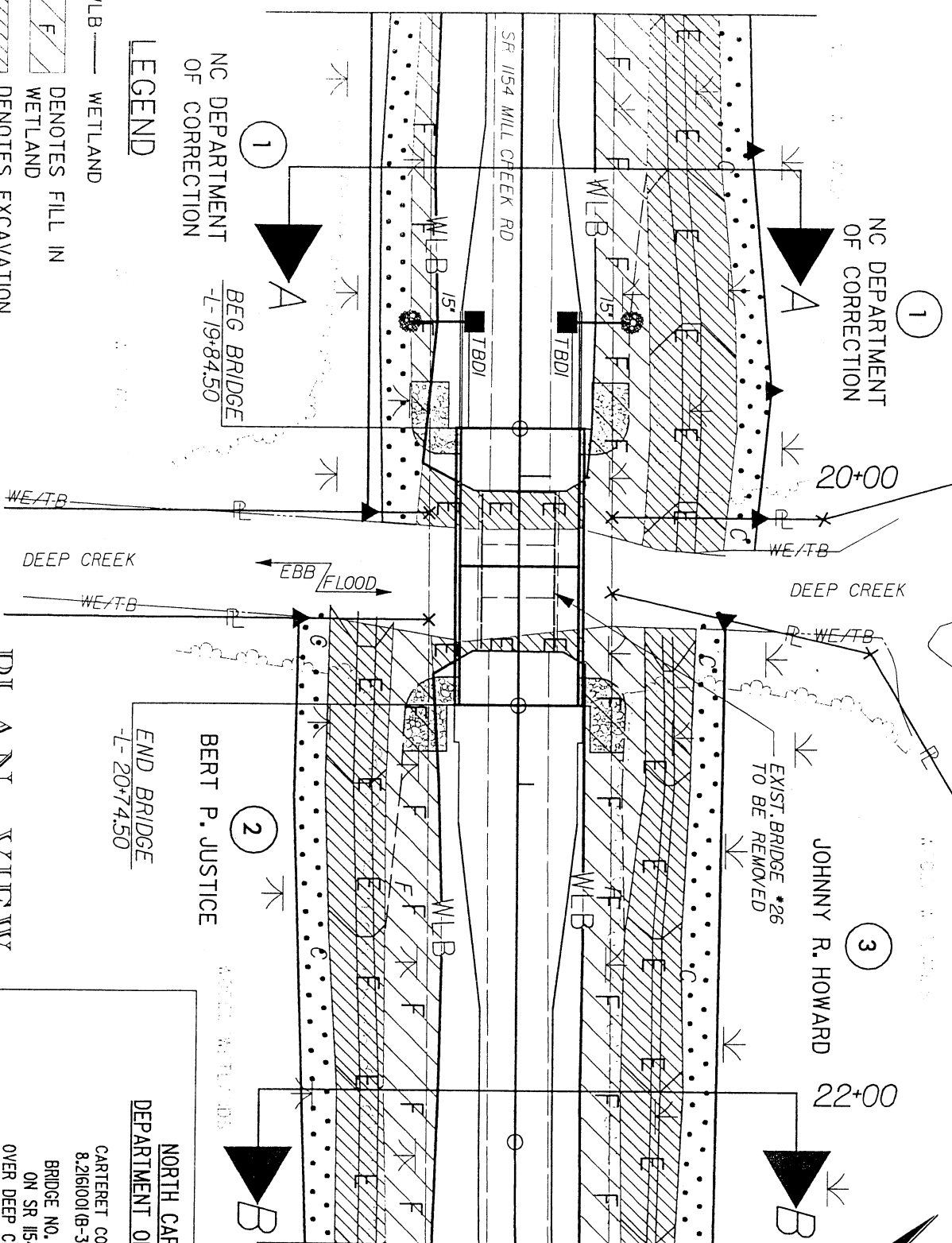
MATCHLINE STA. 18+50

NC DEPARTMENT
 OF CORRECTION

BEG. BRIDGE
 -L-19+84.50

LEGEND

- WLB — WETLAND
- F F DENOTES FILL IN WETLAND
- E E DENOTES EXCAVATION IN WETLAND
- DENOTES MECHANIZED CLEARING

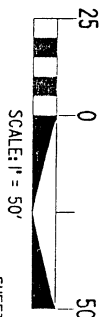


MATCHLINE STA. 22+50

NORTH CAROLINA
 DEPARTMENT OF HIGHWAYS

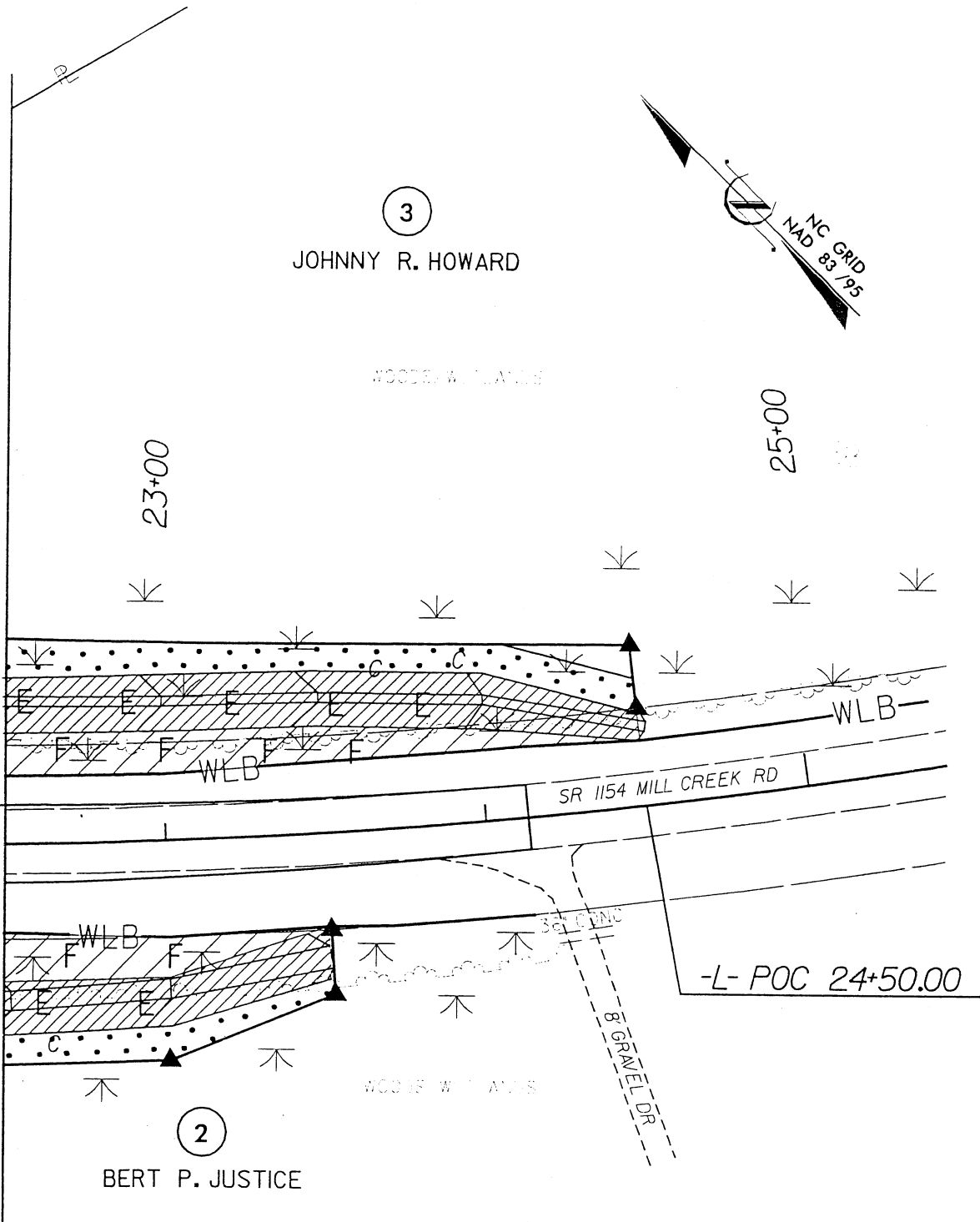
CARTERET COUNTY
 8.2161001(B-36261)
 BRIDGE NO. 26
 ON SR 1154
 OVER DEEP CREEK

DATE: 1-20-03



SHEET 6 OF 11


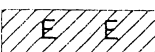
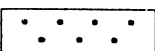
MATCHLINE STA. 22+50



PLAN VIEW

LEGEND

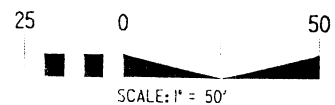
SITE 1

- WLB— WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES MECHANIZED CLEARING

NORTH CAROLINA DEPARTMENT OF HIGHWAYS

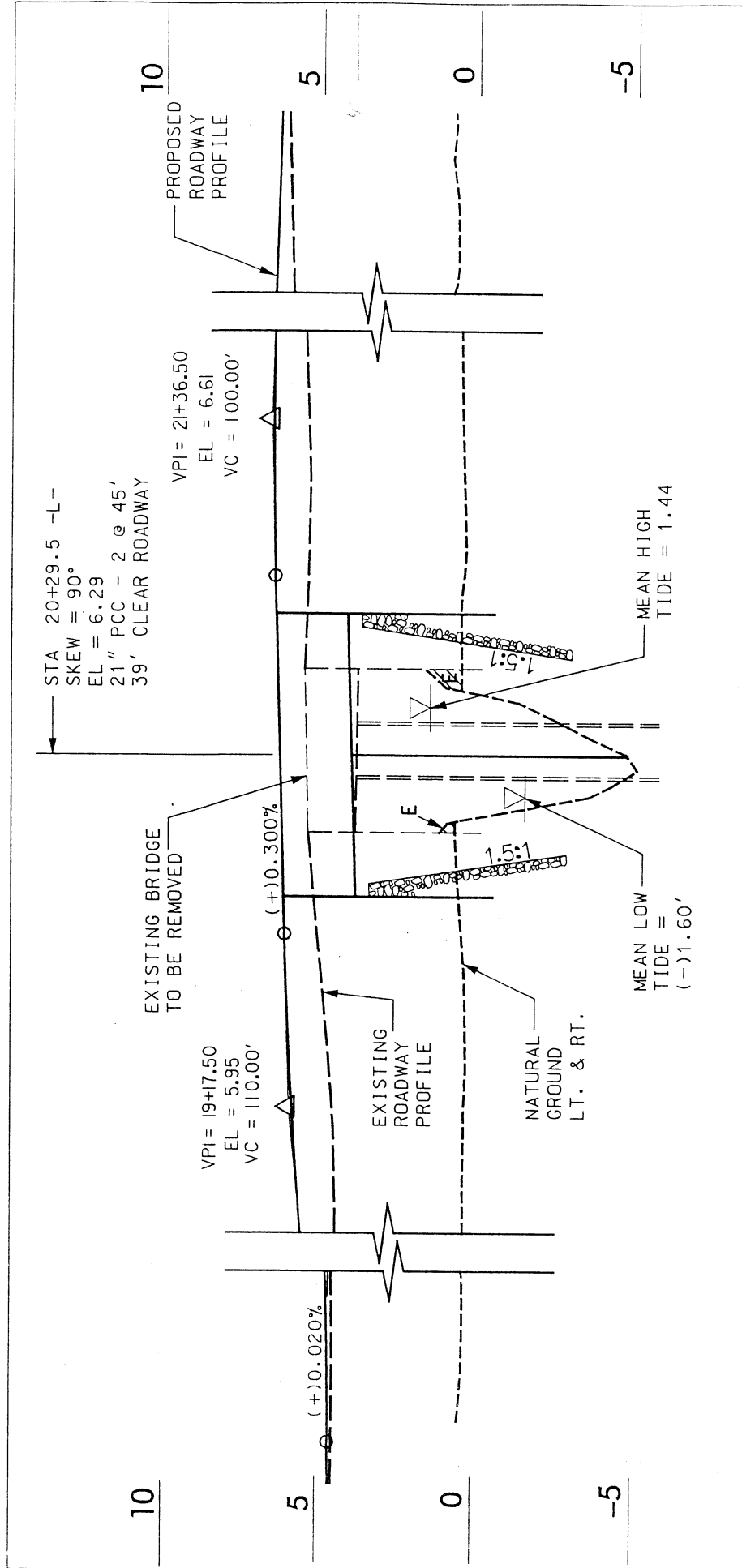
CARTERET COUNTY
8.2161001 (B-3626)

BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK



DATE: 1-20-03

SHEET 11 OF 11



LEGEND

E E DENOTES EXCAVATION
 IN WETLAND

**PROFILE
SITE 1**

18+00 19+00 20+00 21+00

10 5 0 -5

**NORTH CAROLINA
DEPARTMENT OF HIGHWAYS**

CARTERET COUNTY
 8.216100 (B-3626)

BRIDGE NO. 26
 ON SR 1154
 OVER DEEP CREEK

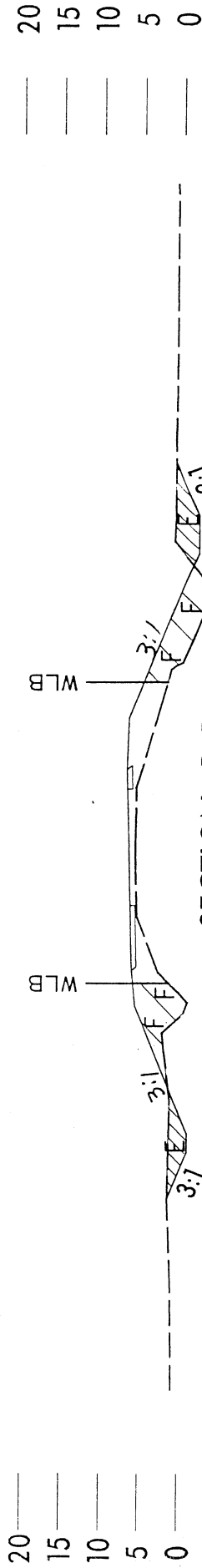
HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

2.5 0 5

25 0 50

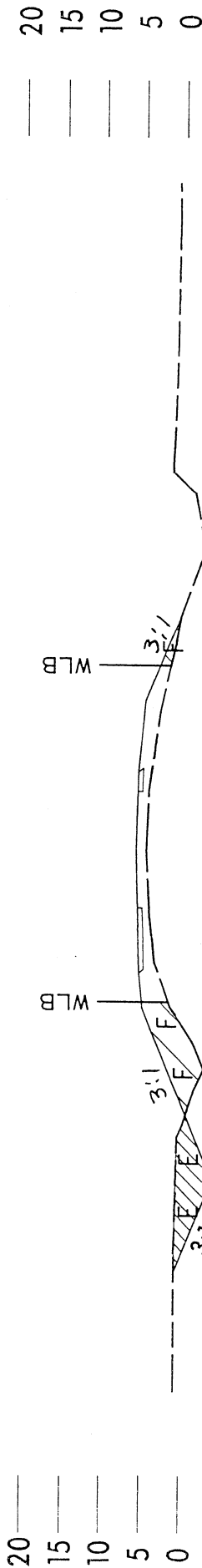
DATE: 1-20-03

SHEET 2 OF 11



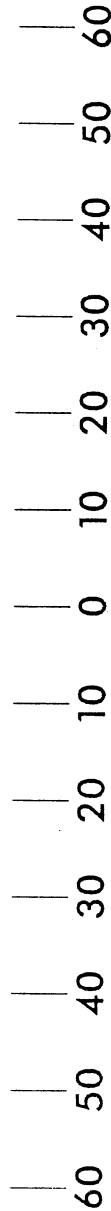
SECTION B-B

22+00.00



SECTION A-A

19+00.00



- LEGEND**
- WLB — WETLAND
 - F F DENOTES FILL IN WETLAND
 - E E DENOTES EXCAVATION IN WETLAND

NORTH CAROLINA
 DEPARTMENT OF HIGHWAYS

CARTERET COUNTY
 8.2161001 (B-3626)
 BRIDGE NO. 26
 ON SR 1154
 OVER DEEP CREEK
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 20'



DATE: 1-20-03

SHEET 9 OF 11

TYPICAL X-SECTIONS SITE 1

WETLAND PERMIT IMPACT SUMMARY											
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS				
			Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Natural Stream Design (ft)
1	16+46.17 - 19+84.50	ROADWAY APPROACH (WEST) LT & RT	0.154	---	0.171	0.142	---	---	---	---	---
1	19+84.50 - 20+74.50	BRIDGE LT & RT	0.035	---	0.071	0.031	---	---	---	---	---
1	20+74.50 - 24+50.00	ROADWAY APPROACH (EAST) LT & RT	0.197	---	0.250	0.151	---	---	---	---	---
TOTALS:			0.386	0	0.492	0.324	0	0	0	0	0

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CARTERET COUNTY
PROJECT: 8.2161001 (B-3626)

SHEET 10 OF 11
1/16/2003

Form Revised 3/22/01

SUMMARY OF AFFECTED PROPERTY OWNERS

[illegible]

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

CARTERET COUNTY
8.2161001 (B-3626)

BRIDGE NO. 26
ON SR 1154
OVER DEEP CREEK

NOT TO SCALE

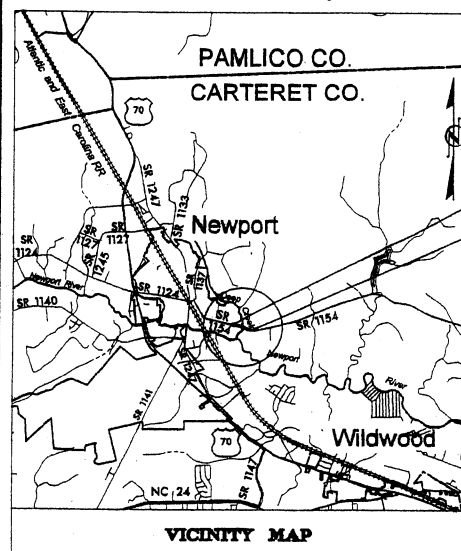
DATE: 1-20-03

SHEET 11 OF 11

0/20/2003
03:03:32 PM
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SYSTEMS DGN

See Sheet 1-A For Index of Sheets
See Sheet 1-B for Conventional Symbols

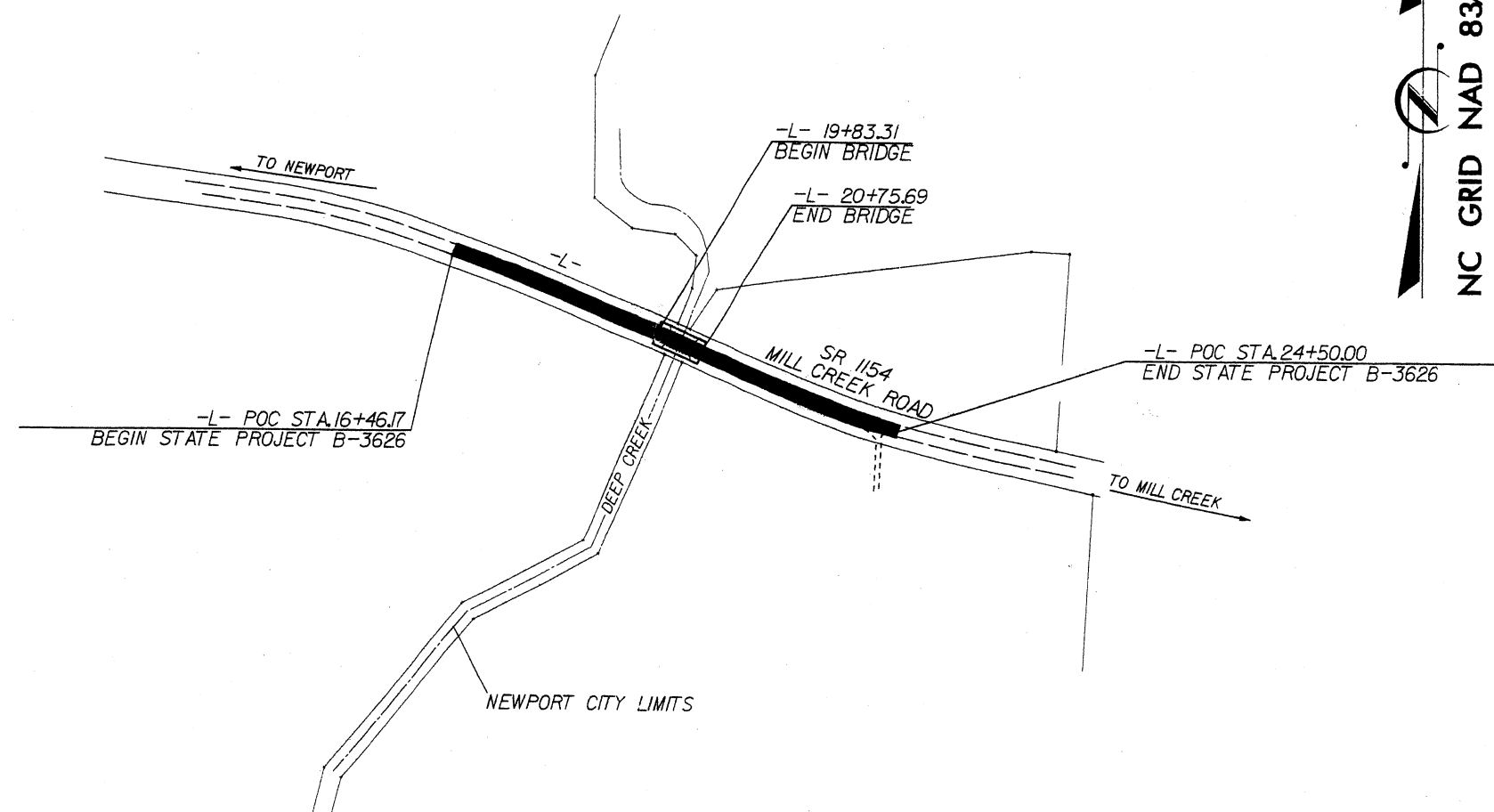


BEGIN PROJECT
END PROJECT

CARTERET COUNTY


TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3626	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33174.1.2	BRSTP-1154(2)	PE	
33174.2.2	BRSTP-1154(2)	RW & UTILITY	
33174.3.2	BRSTP-1154(3)	CONSTR.	



NC GRID NAD 83

Prepared in the Office of:

 **SEAR·BROWN**

1000 Corporate Drive, Suite 10
Hillsborough, NC 27278-8551
(919) 732-3883
www.searbrown.com

PREPARED FOR THE DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS, RALEIGH, NC
NCDOT CONTACT
CATHY S. HOUSER, PE
DESIGN SERVICES PROJECT ENGINEER

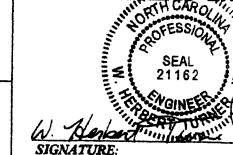
RIGHT OF WAY DATE:
FEBRUARY 21, 2003

LETTING DATE:
APRIL 20, 2004

JAMES W. PARKER JR. PE, PLS
PROJECT ENGINEER

DENNIS NAILLON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER



ROADWAY DESIGN ENGINEER

112916

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

out 75 million

P.E.

STATE DESIGN ENGINEER

**DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED
DIVISION ADMINISTRATOR

DA

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

PREPARED BY:
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PROJECT REFERENCE NO.
B-3626

SHEET NO.
2

BOUNDARIES AND PROPERTY:

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	○ IFP
Property Corner	_____
Property Monument	□ ECM
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	-o-o-o-
Proposed Chain Link Fence	-□-□-□-
Proposed Barbed Wire Fence	-◇-◇-◇-
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing High Quality Wetland Boundary	-HQ WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	_____

HYDROLOGY:

Stream or Body of Water	_____
Hydro, Pool or Reservoir	_____
River Basin Buffer	-RBB-
Flow Arrow	→
Disappearing Stream	→
Spring	○
Swamp Marsh	⊕
Proposed Lateral, Tail, Head Ditch	_____
False Sump	_____

RAILROADS:

Standard Gauge	_____
RR Signal Milepost	○
Switch	_____
RR Abandoned	_____
RR Dismantled	_____

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	_____
Proposed Right of Way Line with Iron Pin and Cap Marker	_____
Proposed Right of Way Line with Concrete or Granite Marker	_____
Existing Control of Access	_____
Proposed Control of Access	_____
Existing Easement Line	-E-
Proposed Temporary Construction Easement	-E-
Proposed Temporary Drainage Easement	-TDE-
Proposed Permanent Drainage Easement	-PDE-
Proposed Permanent Utility Easement	-PUE-

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Wheel Chair Ramp	WCR
Curb Cut for Future Wheel Chair Ramp	CCFR
Existing Metal Guardrail	_____
Proposed Guardrail	_____
Existing Cable Guiderail	_____
Proposed Cable Guiderail	_____
Equaility Symbol	⊕
Pavement Removal	_____

VEGETATION:

Single Tree	⊕
Single Shrub	⊕
Hedge	_____
Woods Line	_____
Orchard	_____
Vineyard	_____

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	_____
Footbridge	_____
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	_____
Storm Sewer Manhole	⊕
Storm Sewer	S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊕
Power Transformer	⊕
U/G Power Cable Hand Hole	PH
H-Frame Pole	●
Recorded U/G Power Line	P
Designated U/G Power Line (S.U.E.*)	P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	PH
Recorded U/G Telephone Cable	T
Designated U/G Telephone Cable (S.U.E.*)	T
Recorded U/G Telephone Conduit	TC
Designated U/G Telephone Conduit (S.U.E.*)	TC
Recorded U/G Fiber Optics Cable	T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	T FO

WATER:

Water Manhole	⊕
Water Meter	⊕
Water Valve	⊕
Water Hydrant	⊕
Recorded U/G Water Line	W
Designated U/G Water Line (S.U.E.*)	W
Above Ground Water Line	A/G Water

TV:

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	PH
Recorded U/G TV Cable	TV
Designated U/G TV Cable (S.U.E.*)	TV
Recorded U/G Fiber Optic Cable	TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	TV FO

GAS:

Gas Valve	⊕
Gas Meter	⊕
Recorded U/G Gas Line	G
Designated U/G Gas Line (S.U.E.*)	G
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	SS
Above Ground Sanitary Sewer	A/G Sanitary Sewer
Recorded SS Forced Main Line	FSS
Designated SS Forced Main Line (S.U.E.*)	FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊕
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	UTL
U/G Tank; Water, Gas, Oil	_____
A/G Tank; Water, Gas, Oil	_____
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

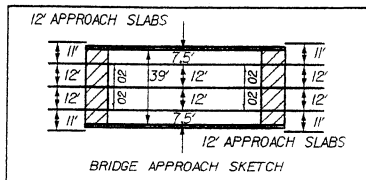
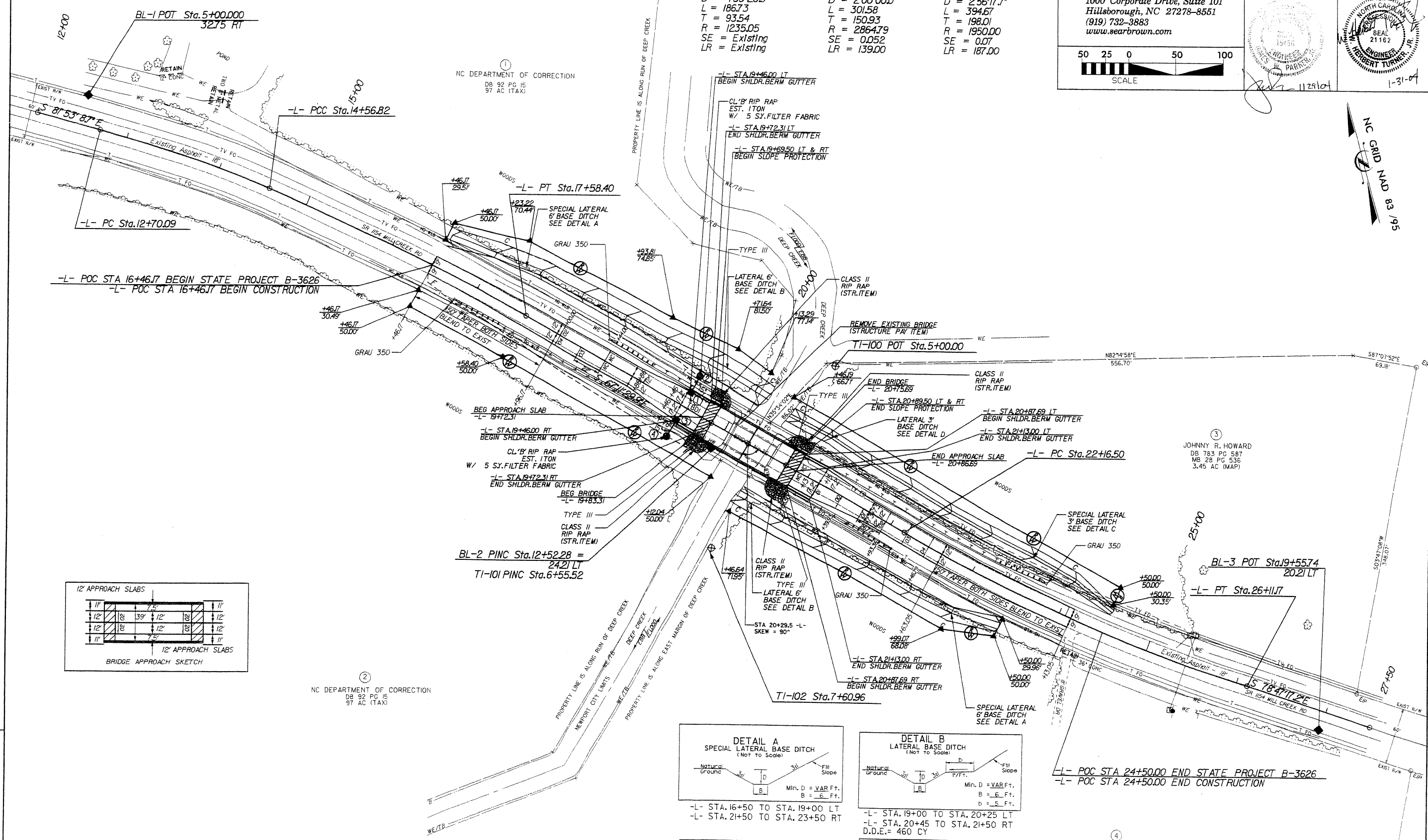
8/17/99

REVISIONS

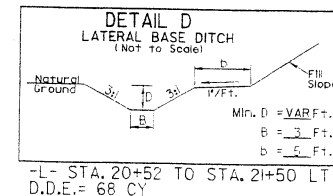
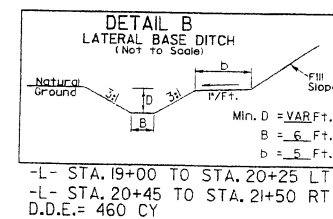
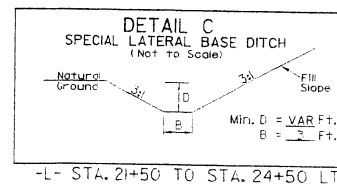
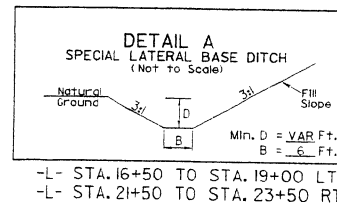
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PROJECT REFERENCE NO. B-3626		SHEET NO. 3
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	



NC DEPARTMENT OF CORRECTION
 DB 92 PG 15
 97 AC (TAX)




-L- POC STA 24+50.00 END STATE PROJECT B-3626
 -L- POC STA 24+50.00 END CONSTRUCTION

BERT P. JUSTICE
 DB 366 PG 38
 33.74 AC (DEED)

NOTES:
 1) FOR -L- PROFILE SEE SHEET 5.
 2) SEE STRUCTURE PLANS SITHRU S...

5/14/99

SYNOPSIS
DESIGN
USER NAME

PREPARED BY:

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Hillsborough, NC 27278-8551
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50 25 0 50 100

SCALE - HORIZONTAL

5 0 5 10

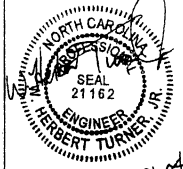

SCALE - VERTICAL

PROJECT REFERENCE NO.
B-3626

SHEET NO.
4

ROADWAY DESIGN
ENGINEER

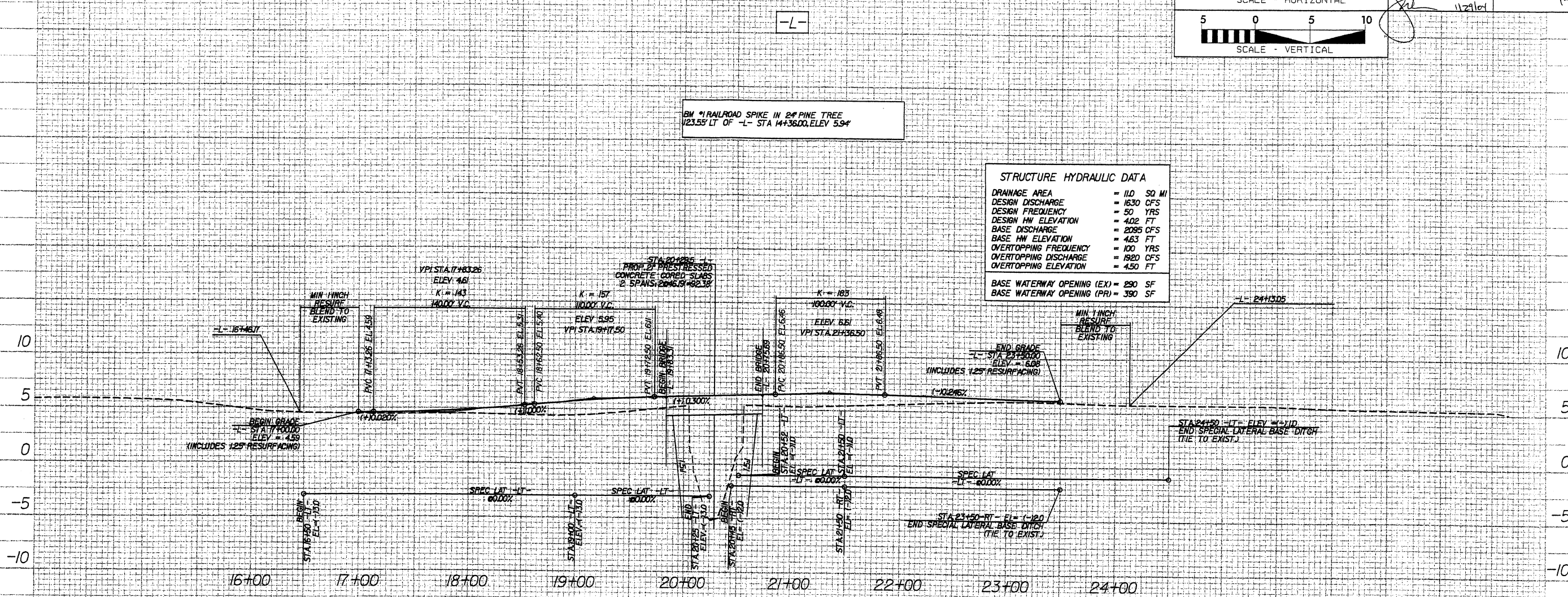
HYDRAULICS
ENGINEER



11/29/04
1-31-04

BM *1 RAILROAD SPIKE IN 24" PINE TREE
123.55' LT OF -L- STA 14+36.00, ELEV 5.94'

STRUCTURE HYDRAULIC DATA	
DRAINAGE AREA	= 110 SQ MI
DESIGN DISCHARGE	= 1630 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 402 FT
BASE DISCHARGE	= 2095 CFS
BASE HW ELEVATION	= 463 FT
OVERTOPPING FREQUENCY	= 100 YRS
OVERTOPPING DISCHARGE	= 1920 CFS
OVERTOPPING ELEVATION	= 450 FT
BASE WATERWAY OPENING (EX)	= 290 SF
BASE WATERWAY OPENING (PR)	= 390 SF



FOR -L- PLANS SEE SHEET 4.
SEE STRUCTURE PLANS SITHRU S.

